REMARKS

Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

Claims 1-36 were rejected under 35 U.S.C. §102(e) as being anticipated by MacInnis (U.S. Patent No. 6,501,480). New claims 37-72 are added to particularly point out and distinctly claim the subject matter. Thus, claims 1-72 are pending.

Applicant respectfully submits that the disclosure of MacInnis is substantially different from the subject matter as claimed. MacInnis does not teach each and every element of the pending claims. The scope of "unique", "transparent" and "different" behaviors of CLUTs as identified in MacInnis is completely different from, *without any overlap with*, the scope of the "unique", "transparent" and "different" behaviors of a command of a script as specified in claims 1-36. Further, new claims 37-72 do not use the terms "behavior", "unique", "transparent" and "different".

In order to properly compare the disclosure of MacInnis and the subject matter as claimed in the pending claims, it is helpful to review the portions of the disclosure of MacInnis, which were relied upon for the rejections.

Figure 4 of MacInnis shows a graphics pipeline 80, which includes a graphics convert block 90 (e.g., Col. 6, lines 19-29, MacInnis). The graphics convert block 90 takes raw graphics data from the FIFO block 88 to convert the raw graphics data into a YUVa format (e.g., Col. 7, lines 13-15, MacInnis). The raw graphics data in the FIFO block 88 may be formatted through a color look up table (CLUT). For example, when a color in the raw graphics data is represented by a color index, the actual color components can be looked up from the corresponding CLUT. Thus, graphics convert block 90 uses a CLUT to convert the

raw graphics data into the YUVa format. In one embodiment of MacInnis (e.g., Col. 7, lines 34-35, MacInnis), only one CLUT is provided in the graphics pipeline 80. In an alternate embodiment of MacInnis (e.g., Col. 7, lines 35-37, MacInnis), multiple CLUTs are used to convert raw graphics data that are formatted using different CLUTs. It is understood that if the colors in raw graphics data are indexed using one CLUT, it should be converted using the corresponding CLUT. Thus, the use of multiple CLUTs allows the graphics pipeline to process raw graphics data indexed in different ways.

In MacInnis, a data structure called window descriptor contains parameters that describe and control each graphics window (e.g., Col. 11, lines 38-42, MacInnis). A window descriptor contains fields to specify "alpha type" and "alpha value" (e.g., Col. 13, lines 64-65, MacInnis). The alpha type determines how the alpha value of a pixel is determined in converting from the raw graphics data to the YUVa format. For example, an alpha type of 00b can be specified to indicate that the alpha value of each pixel of the window is to be selected from chroma keying (e.g., Col. 14, lines 3-14); an alpha type of 01b can be specified to indicate that the alpha value of each pixel of the window is to be derived from the CLUT (e.g., Col. 14, lines 15-25).

It is also helpful to review an embodiment of the present invention, which supports the pending claims. In one embodiment of the present invention, a scripting engine is capable of accepting scripts written in different formats (e.g., RGB, YUV, or a combination of RGB and YUV). The image processing commands in the scripts are examined to determine a best approach to perform the image processing operations associated with these commands. The image processing commands may be categorized in different groups. For example, the image-processing commands in the one group produce no difference in visual results regardless whether the commands are performed in the RGB color space or in the YUV color space (see, e.g., page 9, lines 11-15, the specification); the image-processing

commands in another group produce a difference in visual results regardless whether the commands are performed in the RGB color space or in the YUV color space (see, e.g., page 9, lines 15-18, the specification); the image-processing commands in a further group work only in the RGB color space (does not work in the YUV color space) (see, e.g., page 9, lines 23-25, the specification). In one embodiment of the present invention, a command in the script is processed according to the group of commands it belongs.

New claims 37-72 do not use the terms "behavior", "unique", "transparent" and "different". For example, claim 55 recites:

> 55. (new) A data processing system, comprising:
> memory storing a script written for a first color space;
> a processor coupled with the memory, the process retrieving a first command from the script stored in the memory, in response to the processor <u>classifying the first command as one of</u>:
> operating only in the first color space,
> generating similar results in the first color space and in a second color space, and
> generating different results in the first color space and in the second color space,
> the processor processing an operation associated with the first command in a preferred color space <u>according to a result of classifying the first command</u>.

MacInnis does not have a description of a data processing system ***classifying*** a command retrieved from a script into one of the categories: I) operating only in a first color space; II) generating similar results in the first color space and in a second color space; and, III) generating different results in the first color space and in the second color space, *such that* an

operation associated with the command is processed in a preferred color space according to the result of the classification.

In MacInnis, the graphics converter block 90 always converts the raw graphics data into the fixed preferred format (e.g., YUVa format). The graphics blending block 94 always operates on the fixed preferred format (e.g., YUVa format). The graphics pipeline always uses the correct CLUT to convert the raw graphics data into the fixed preferred format YUVa. The graphics blending block does not process an operation in a preferred color space according to the result of a classification of a command retrieved from a script. The raw graphics data in FIFO 88 is not a script. The commands of processing the image are pre-designed and hardwired in the blocks. Since the commands of MacInnis are pre-designed for specific color spaces, MacInnis does not have any classification operation as recited in claim 55. Since claims 56-63 depend from claim 55, claims 56-63 are patentable over MacInnis at least for the above reasons.

Claim 46 recites:

46. (new) A machine readable medium containing executable computer program instructions which when executed by a data processing system cause said system to perform a method, comprising:
retrieving a first command from a script written for a first color space;
<u>identifying the first command as one of</u>:
operating only in the first color space,
generating similar results in the first color space and in a second color space, and
generating different results in the first color space and in the second color space; and
processing an operation associated with the first command in a preferred color space <u>according to a result of said identifying</u>.

MacInnis does not have a description of ***identifying*** a command, retrieved from a script, ***as*** belonging to one of the groups: I) operating only in a first color space; II) generating similar results in the first color space and in a second color space; and, III) generating different results in the first color space and in the second color space, such that an operation associated with the command is processed in a preferred color space according to the result of the identifying operation.

Each processing block of MacInnis operates in a pre-designed color space. Commands of MacInnis are embodied in the processing blocks, which are pre-designed and hardwired to perform tasks in pre-designed color spaces. There are no scripting and the processing of commands for scripting in MacInnis. Since the commands of MacInnis are pre-designed for specific color spaces, MacInnis does not have any identifying operation as recited in claim 46. Thus, claim 46 is patentable over MacInnis. Since claims 47-54 depend from claim 46, claims 47-54 are patentable over MacInnis at least for the above reasons.

Claim 37 recites:

37. (new) A machine implemented method, comprising:

retrieving a first command from a script written for a first color space;

determining the first command <u>to be one of</u>:

operating only in the first color space,

generating similar results in the first color space and in a second color space, and

generating different results in the first color space and in the second color space; and

processing an operation associated with the first command in <u>a preferred color space according to a result of said determining</u>.

MacInnis does not have a description of a **machine implemented method** of *determining* a command ***to be one of***: I) operating only in a first color space; II) generating similar results in the first color space and in a second color space; and, III) generating different results in the first color space and in the second color space, such that an operation associated with the command is processed in *a preferred color space according to the result of determining the command to be one of these categories*.

Since there are no scripting and the processing of commands for scripting in MacInnis, the commands of MacInnis are pre-designed and hardwired for specific color spaces. MacInnis does not have the operation of determining if a command operates only in the first color space, or generates similar results in the first color space and in a second color space, or generates different results in the first color space and in the second color space. MacInnis does not process operations of a command in a preferred color space according the behavior of the command in different color spaces. Thus, claim 37 is patentable over MacInnis. Since claims 38-45 depend from claim 37, claims 38-45 are patentable over MacInnis at least for the above reasons.

Claim 64 recites:

64. (new) A computer system, comprising:
means for retrieving a first command from a script written for a first color space;
means for <u>examining to determine the first command is which one of</u>:
operating only in the first color space,
generating similar results in the first color space and in a second color space, and
generating different results in the first color space and in the second color space; and

means for processing an operation associated with the first command in <u>a preferred color space according to a result of said means for examining to determine</u>.

MacInnis does not have a description of ***examining to determine*** the first command is which one of: I) operating only in a first color space; II) generating similar results in the first color space and in a second color space; and, III) generating different results in the first color space and in the second color space, such that an operation associated with the command is processed in *a preferred color space according to the result of the examining to determine.* Thus, claim 64 is patentable over MacInnis. Since claims 65-72 depend from claim 64, claims 65-72 are patentable over MacInnis at least for the above reasons.

Applicant respectfully submits that the scope of "unique", "transparent" and "different" behaviors of CLUTs as identified in MacInnis is completely different from, *without any overlap with*, the scope of the "unique", "transparent" and "different" behaviors of a command of a script as specified in claims 1-36. For example, claim 1 recites:

1. (previously presented) A method, comprising:
retrieving <u>a first command from a script written for a first color space</u>;
determining a behavior of the first command, wherein the behavior of the first command is:
unique <u>when the first command operates only in the first color space</u>,
transparent <u>when the first command generates similar results in the first color space and in a second color space</u>, and
different <u>when the first command generates different results in the first color space and in the second color space</u>; and

processing an operation associated with the first command in a preferred color space according to the behavior of the first command.

The examiner pointed out that recognizing **only one CLUT** is a determination of a behavior of the first command. However, Applicant respectfully submits that MacInnis does not teach an operation of "***recognizing***" only one CLUT. There is no such an operation in MacInnis. The description of Col. 7, lines 34-37, of MacInnis show that the only one CLUT is used *in one embodiment* of MacInnis and that multiple CLUTs are in *an alternate embodiment*. Applicant does not see any description of "***recognizing***" only one CLUT in MacInnis.

It is understood that if only one CLUT is used, the raw graphics data cannot be formatted using other CLUT. If multiple CLUTs are available, the one that matches the raw graphics data can be used to convert the raw graphics data. It is understood that MacInnis teaches to used multiple CLUTs to convert different raw graphics data formatted accordingly using different CLUTs.

For anticipation under 35 U.S.C. 102, the reference must teach **each and every aspect** of the claimed invention. The examiner concluded on page 6 of the Office Action mailed 12/17/2003 that:

> "Therefore, having considered the variations within the CLUTs as corresponding to the behavior of the first command, they show the relationships of determining the behavior of one or multiple CLUTs as unique, transparent, and different".

To understand the examiner's position, the limitation of "determining a behavior of the first command" in claim 1 is correlated to "determining the behavior of one or multiple CLUTs" in the conclusion in the Office Action. From this correlation, it is apparent that the examiner

considered one CLUT (or multiple CLUTs) corresponding to "the first command". However, claim 1 recites an aspect of "retrieving a first command from a script written for a first color space", but one or more CLUTs of MacInnis are not a command retrieved from a script written for a first color space. Further, graphics convert block 90 of MacInnis uses the CLUT without determining the behavior of the CLUT.

Further, the behavior of CLUT as "unique", "transparent" or "different" as found in MacInnis does not correspond to the behavior of the first command recited in claim 1 (10, 19, or 28).

According to claim 1, the behavior of the first command is "unique" *when the first command operates only in the first color space*. It is clear that MacInnis does not have a description of determining if one or multiple CLUTs operate only in the first color space. The examiner pointed to Col. 7, lines 34-35, of MacInnis for this part of the limitation of claim 1. However, Col. 7, lines 34-35, of MacInnis shows that "In one embodiment of the present invention, there is only one CLUT." Such a unique condition (of using only one CLUT) in one embodiment of MacInnis has nothing to do with "the first command operates only in the first color space". Thus, the scope of "unique" as defined in claim 1 is completely different from the scope of "unique" of MacInnis.

Further, according to claim 1, the behavior of the first command is "transparent" *when the first command generates similar results in the first color space and in a second color space*. It is clear that MacInnis does not have a description of determining if one or multiple CLUTs generate different similar results in the first color space and in a second color space. The examiner pointed to Col. 14, lines 4-14, of MacInnis for this part of the limitation of claim 1. However, Col. 14, lines 4-14, of MacInnis describes the alpha type field of a window descriptor, which is not a part of a CLUT. The alpha type field specifies how the transparency of a pixel (alpha value) is determined. Thus, it is not the behavior of

one or multiple CLUTs. Further, such a description of "transparent if the pixel falls within a range of possible colors" has nothing to do with "the first command generates similar results in the first color space and in a second color space". Thus, the scope of "transparent" as defined in claim 1 is completely different from the scope of "transparent" of MacInnis.

Furthermore, according to claim 1, the behavior of the first command is "different" *when the first command generates different results in the first color space and in the second color space*. It is clear that MacInnis does not have a description of determining if one or multiple CLUTs generate different results in the first color space and in the second color space. The examiner pointed to Col. 7, lines 35-39, of MacInnis for this part of the limitation of claim 1. However, Col. 7, lines 35-39, of MacInnis shows that "In an alternate embodiment, multiple CLUTs are used to process different graphics windows having graphics data with different CLUT formats". Such a term of "different" of MacInnis has nothing to do with "the first command generates different results in the first color space and in the second color space". Thus, the scope of "different" as defined in claim 1 is completely different from the scope of "different" of MacInnis.

Thus, the scope of "unique", "transparent" or "different" of MacInnis does not overlap with the scope of "unique", "transparent" or "different" as specified in claims 1, 10, 19 and 28.

The examiner pointed to the description of YUV used for video or alternative formats on Col. 42 of MacInnis for the limitation of "retrieving a first command from a script written for a first color space" recited in claim 1. However, the description of Col. 42 relates to the operation of the video pipeline. In Figure 4, it is seen that the video pipeline 82 does not use CLUT 92. Thus, it is inconsistent to consider CLUT as the first command while applying the description of Col. 42, which does not involve CLUT, to the limitation of "retrieving a first command from a script written for a first color space".

Claims 2-9, 11-18, 20-27 and 29-36 depend from claims 1, 10, 19 and 28 to incorporate the limitations of the corresponding independent claims.

Thus, MacInnis does not teach each and every aspect of the limitations recited in claims 1-36. Further, since the scope of the elements of MacInnis applied to the claims does not overlap with the scope of the claim limitations recited in claims 1-36, they cannot be used to reject claims 1-36. Thus, the withdrawal of the rejection under 35 U.S.C. 102(e) for claims 1-36 is respectfully requested.

Please charge any shortages or credit any overages to Deposit Account No. 02-2666. Furthermore, if an extension is required, applicant hereby requests such extension.

Respectfully submitted,

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